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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/879,637	06/12/2001	Chang-Whan Jung	SAM-210	4260

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EXAMINER

NGUYEN, MINH T

ART UNIT	PAPER NUMBER
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2816

DATE MAILED: 01/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/879,637	Applicant(s) JUNG ET AL.	
	Examiner Minh Nguyen	Art Unit 2816	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 December 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All   b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. Applicants' amendment filed on 12/08/03 has been received and entered. Claims 1-12 are pending. The amendment and argument presented therein overcome the objection and the prior art rejections based on the '151 reference, and therefore, these are withdrawn. However, the amended claims do not overcome the rejections based on the '391 reference for the reasons set forth below. This action is FINAL.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. '391, issued to Haraguchi.

As per claim 1, Haraguchi discloses a fuse circuit (Fig. 17) for a semiconductor integrated circuit, comprising:

a plurality of fuses (163 and 263); and

a plurality of transmission circuits (TG14 and TG24), each transmission circuit being coupled to a corresponding fuse of the plurality of fuses (as shown, TG14 to 163 and TG24 to 263); each transmission circuit for transferring signals from an input node (this is a function of a

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transmission gate) to an output node in response to a status of the corresponding fuse (depending on whether the corresponding fuse is blown or not, see column 5, lines 52-67), the input and output nodes of respective adjacent transmission circuits being coupled such that the transmission circuits are arranged in series (as shown, TG14 and TG24 are in series), an input signal (X1.X2) which is applied to the input node of transmission circuit (TG14) is transferred to the output node of the last transmission circuit (TG24) when all of the transmission circuits in series (TG14 and TG24) are in active state (because TG14 and TG24 are both closed), however, either one (TG14 or TG24) is in inactive state (either one of the switches TG14 or TG24 is opened), the input signal (X1.X2) cannot be transferred to the output (SB).

As per claim 2, met since it is merely an operation of the circuit, i.e., when input signal (X1.X2) is selected, the fuses have identical status.

As per claim 3, the first terminal of fuse (163) is connected to the first power supply which is GND and the second terminal of fuse (163) is connected to node (160).

As per claim 4, as shown, the transmission gate TG14 is connected as recited, the primary control terminal connected to node 167 and the secondary control terminal connected to the output of inverter 166; and the recited inverter 166 connected as recited.

As per claim 5, as shown TG14 includes PMOS and NMOS transistors connected as recited.

As per claim 6, the recited power supply voltage reads on the voltage of the signal X1.X2 since the voltage must come from a power supply voltage.

As per claim 7, the recited resistor reads on resistor 162 connected to the second power supply voltage VCC.

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As per claim 8, same as claim 1.

As per claim 9, since each of the fuses has two ends, it stores one bit of information, and the information can be anything which includes the information relevant to the semiconductor integrated circuit.

As per claims 10-12, these claims are rejected for the same reasons noted in claims 4, 5 and 7, respectively.

### ***Response to Arguments***

3. Applicants' arguments with regard to the claims have been considered but they are not persuasive. The arguments relating the '151 reference are moot because the rejections based on this reference have been withdrawn. The following is the response to the arguments relating the Haraguchi reference:

Regarding the argument one of the "input signals" in the Haraguchi is always transferred by the circuit to the output node (SB), regardless of the active/inactive states of the transmission circuits.

The examiner responses:

First, the applicants are reminded the word "comprising" used in the preamble of claim 1, the meaning of this word is: *it is permissible to have some other elements in the circuit besides the plurality of fuses and the plurality of transmission circuits recited in the body of claim 1.*

Second, the applicants are urged to reread the preceding rejections. Specifically, in the preceding rejection regarding claim 1, the plurality of transmission circuits connected in series read on the transmission circuits TG14 and TG24, these transmission circuits are clearly

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connected in series, the transmission circuits TG11-TG13 and TG21-TG23 are permissible in the circuit because of the word “comprising”. The input signal reads on the signal (X1.X2), not all of the “input signals” as understood by the applicants, the other “input signals” are permissible in the circuit because of the word “comprising”.

The remaining issue is: *if the input signal (X1.X2), the fuses (163 and 263) and the transmission circuits (TG14 and TG24) in the Huraguchi circuit can perform the recited function.*

It is clear that the input signal (X1.X2), the fuses (163 and 263), the transmission circuits (TG14 and TG24) perform the function recited on the last six lines of claim 1. As clearly discussed in the preceding rejection, an input signal (X1.X2) which is applied to the input node of transmission circuit (TG14) is transferred to the output node of the last transmission circuit (TG24) when all of the transmission circuits in series (TG14 and TG24) are in active state (view TG14 and TG24 as switches then it is clear that when both switches are closed, the input signal (X1.X2) is transferred to the output node (SB)), however, when either one (TG14 or TG24) is in inactive state (either one of the switches TG14 or TG24 is opened), the input signal (X1.X2) cannot be transferred to the output (SB).

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Nguyen whose telephone number is 703-306-9179. The examiner can normally be reached on Monday, Tuesday, Thursday, Friday 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 703-308-4876. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9318.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



1/9/04

Minh Nguyen  
Primary Examiner  
Art Unit 2816